No. 200300292

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

University of Maryland

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR CONDITIONING IT PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR ENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN TED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED 2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1 OED, 7 U.S.C. 2321 ET SEQ.)

BARLEY

'Catchpenny'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this twenty-fourth day of November, in the year two thousand and four.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
UNIVERSITY OF MARYLAND

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
MD881007-6

3. VARIETY NAME
CATCHPENNY

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
Office of Technology Commercialization
6200 Baltimore Ave., Suite 300
Riverdale, MD 20742-9520

5. TELEPHONE *(include area code)*
301-403-2711

6. FAX *(include area code)*
301-403-2717

FOR OFFICIAL USE ONLY

PVPO NUMBER
200300292

FILING DATE
July 24, 2003

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Non-profit

8. IF INCORPORATED, GIVE STATE OF INCORPORATION

9. DATE OF INCORPORATION

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
James Poulos
Office of Technology Commercialization (University of Maryland)
6200 Baltimore Ave., Suite 300
Riverdale, MD 20742-9520

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 3652.00
DATE 7/24/2003

CERTIFICATION FEE:
$ 432.00
DATE 9/20/2004

11. TELEPHONE *(Include area code)*
301-403-2711

12. FAX *(Include area code)*
301-403-2717

13. E-MAIL
jp227@umail.umd.edu

14. CROP KIND *(Common Name)*
Barley

15. GENUS AND SPECIES NAME OF CROP
Hordeum Vulgare

16. FAMILY NAME *(Botanical)*
Graminaceae

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED
(Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☐ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($3,652), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*
☒ YES *(If "yes", answer items 20 and 21 below)* ☐ NO *(If "no", go to item 22)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? ☒ YES ☐ NO
IF YES, WHICH CLASSES? ☒ FOUNDATION ☒ REGISTERED ☒ CERTIFIED

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ YES ☒ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☐ YES ☒ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☒ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER	SIGNATURE OF OWNER
NAME *(Please print or type)* James A. Poulos	NAME *(Please print or type)*
CAPACITY OR TITLE: Executive Director, Office of Technology Commercialization	DATE: 7/2/2003
CAPACITY OR TITLE	DATE

200300292

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $3,652 ($432 filing fee and $3,220 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

19. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

23. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

21. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

22. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

23. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed.htm

ST-470 (02-10-2003) designed by the Plant Variety Protection Office with Word 2000. Replaces former versions of ST-470, which are obsolete.

EXHIBIT A
- ORIGIN AND BREEDING HISTORY-
CATCHPENNY BARLEY

Fall 1987	Original cross made in the greenhouse at College Park, MD.
	Cross number was MD881007.
	Parentage: 'Post'/ 4/'Jotun'/3/'Hudson'//VA 67-42-47/'Rapidan'/5/'Sussex'/'Nomini'. Post carries resistance to the greenbug (*Schizaphis graminum*). Nomini is one of the most widely grown varieties in Maryland.
Fall 1988	F1 plants grown in the greenhouse.
Fall 1989	F2 plants grown in the field at Queenstown, MD.
	Segregating generations of the cross MD881007 were advanced using a modified bulk breeding method.
Summer 1995	F6 head row selection was made. Designated MD881007-6. This selection was evaluated in preliminary trials from 1996 through 1997. It was entered into the state variety trials since 1998 and tested in the Uniform Eastern Barley Nursery in the 2000/2001 crop year across twelve locations in eight states. It was observed to be a high-yielding, early season winter barley with moderate resistance to powdery mildew (caused by *Erysiphe graminis* DC. f. sp. *hordei* Em. Marchal). MD881007-6 is moderately susceptible to leaf rust (caused by *Puccinia hordei* G. Otth), net blotch (caused by *Pyrenophora teres* Drechs.) and carries resistance to the greenbug derived from Post.
Fall 2001	Breeder seed of MD881007-6 was increased at Queenstown (MD) and designated 'Catchpenny'.
Fall 2002	Foundation seed grown at Cordova, MD.

Observations for seven generations indicate that Catchpenny is uniform and stable.

Type and frequency of variants during reproduction and multiplication: Catchpenny contains a fully awned variant that occurs naturally in this variety, with up to 0.1% awned heads.

EXHIBIT B
- STATEMENT OF DISTINCTIVENESS-
CATCHPENNY BARLEY

Catchpenny is different from the most widely grown feed winter barleys Nomini, Barsoy and Pennco (Tables 1 and 2) for heading date and plant height.

Table 1. 2000/2001 Barley Variety Performance Trials at the Hayden Farm Facility - **Beltsville**, MD.

Entry	Heading Date	Height (inches)
Catchpenny	April 25	34.0
Nomini	April 25	37.7
Pennco	April 27	34.3
Barsoy	April 19	34.0
FPLSD (0.05)	**1 day**	**1.6**
CV (%)	**0.4**	**2.9**

Planted on 10/9/2000.

Table 2. 2000/2001 Barley Variety Performance Trials at the Keedysville Facility - **Keedysville**, MD.

Entry	Heading Date	Height (inches)
Catchpenny	May 2	37.3
Nomini	May 2	41.3
Pennco	May 4	36.3
Barsoy	April 29	38.3
FPLSD (0.05)	**1 day**	**2.2**
CV (%)	**0.4**	**3.7**

Planted on 10/2/2000.

The values reported in these tables are means of 3 replications per entry in a randomized complete block design. Barley entries were planted (conventional tillage) at both locations in six-row plots, 18 feet in length, six inches apart. Seeding rate for barley entries was equivalent to 96 lb/acre.

FPLSD= Fisher's protected LSD test, (P 0.05) was calculated to test for pairwise comparisons (Fisher, 1966, The Design of Experiments). To calculate the FPLSD, an ANOVA was conducted on the data, and the F test was significant for both heading date and height at each location. A C.V. (Coefficient of Variation) was calculated as a measure of the relative variation of heading date and plant height of these varieties. The low values for the CVs indicate high precision in measuring these variables (Peterson, 1985, Design and Analysis of Experiments).

Catchpenny is most similar to the winter barley Nomini. It can be distinguished from Nomini because Catchpenny is shorter in plant height (Table 1 and Table 2).

FORM APPROVED: OMB NO. 40-R3822

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
[redacted]N
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Barley)

OBJECTIVE DESCRIPTION OF VARIETY
BARLEY *(HORDEUM VULGARE)*

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
UNIVERSITY OF MARYLAND

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
Office of Technology Commercialization; 6200 Baltimore Ave., Suite 300; Riverdale, MD 20742-9520

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PVPO NUMBER 200300292

VARIETY NAME OR TEMPORARY DESIGNATION

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (i.e. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. GROWTH HABIT:

[3] 1 = SPRING 2 = FACULTATIVE WINTER 3 = WINTER [ ] Early Growth: 1 = PROSTRATE 2 = SEMIPROSTRATE 3 = ERECT

2. MATURITY (50% Flowering):

[2] 1 = EARLY (California Mariout) (BARSOY) 2 = MIDSEASON (Betzes) (Nomini) 3 = LATE (Frontier) (WYSOR)

[4] No. of days *Earlier* than ..... [1]
[2] No. of days *Later* than ..... [2]

WYSOR BARSOY
1 = ~~BETZES~~ 2 = ~~CALIFORNIA MARIOUT~~ 3 = CONQUEST 4 = DICKSON
5 = PIROLINE 6 = PRIMUS 7 = UNITAN

3. PLANT HEIGHT (From soil level to top of head):

[2] 1 = SEMIDWARF 2 = SHORT (California Mariout) (BARSOY) 3 = MEDIUM TALL (Betzes) (Nomini) 4 = TALL (Conquest)

[1][1] Cm. *Shorter* than ..... [1]
[0][9] Cm. *Taller* than ..... [2]

Nomini CALLAO
1 = ~~BETZES~~ 2 = ~~CALIFORNIA MARIOUT~~ 3 = CONQUEST 4 = DICKSON
5 = PIROLINE 6 = PRIMUS 7 = UNITAN

4. STEM:

[3] Exertion *(Flag to spike at maturity):* 1 = 0 - 3 cm. 2 = 3 - 10 cm. 3 = 10 - 15 cm. [1] Anthocyanin: 1 = ABSENT 2 = PRESENT

[0][5] NO. OF NODES (Originating from node above ground)

[1] Collar Shape: 1 = CLOSED 2 = V-SHAPED 3 = OPEN 4 = MODIFIED CLOSED OR OPEN [1] Shape of Neck: 1 = STRAIGHT 2 = SNAKY 3 = OTHER (Specify) _____

5. LEAF:

[1] Basal leaf sheath *(seedling):* 1 = GLABROUS 2 = PUBESCENT [2] Position of flag leaf *(at boot stage):* 1 = DROOPING 2 = UPRIGHT

[3] Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY 3 = WAXY [1][5] MM. WIDTH (First leaf below flag leaf)

[2][2] CM. LENGTH (First leaf below flag leaf) [1] Anthocyanin in leaf sheath: 1 = ABSENT 2 = PRESENT

6. HEAD:

[2] Type: 1 = TWO-ROWED 2 = SIX-ROWED [3] Density: 1 = LAX 2 = ERECT (Not dense) 3 = ERECT (Dense)

[1] Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER (Specify) _____ [2] Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY 3 = WAXY

[2] Lateral Kernels Overlap: 1 = NONE 2 = AT TIP 3 = 1/4 - 1/2 OF HEAD [2] Rachis *(Hair on edge):* 1 = LACKING 2 = FEW 3 = COVERED

7. GLUME:

[2] Length: 1 = 1/3 OF LEMMA 2 = 1/2 OF LEMMA 3 = MORE THAN 1/2 OF LEMMA [2] Hairs: 1 = NONE 2 = SHORT 3 = LONG

[3] Hair covering: 1 = NONE 2 = RESTRICTED TO MIDDLE 3 = CONFINED TO BAND 4 = COMPLETELY COVERED

[1] Awns: 1 = LESS THAN EQUAL TO LENGTH OF GLUMES 2 = EQUAL TO LENGTH OF GLUMES 3 = MORE THAN EQUAL TO LENGTH OF GLUMES

[3] Awn Surface: 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH

200300292

8. LEMMA: Mostly ↳ May have

[2] Awn: 1 = AWNLESS 2 = AWNLETS ON CENTRAL ROWS, AWNLESS ON LATERAL ROWS
3 = SHORT ON CENTRAL ROWS, AWNLETS ON LATERAL ROWS 4 = SHORT (less than equal to length of spike)
5 = LONG (longer than spike) 6 = HOODED

[4] Awn Surface: 1 = AWNLESS 2 = SMOOTH 3 = SEMISMOOTH 4 = ROUGH

[3] Teeth: 1 = ABSENT 2 = FEW 3 = NUMEROUS

[2] Hair: 1 = ABSENT 2 = PRESENT

[2] Shape of base: 1 = DEPRESSION 2 = SLIGHT CREASE 3 = TRANSVERSE CREASE

[1] Rachilla Hairs: 1 = SHORT 2 = LONG

9. STIGMA:

[1] Hairs: 1 = FEW 2 = MANY

10. SEED:

[2] Type: 1 = NAKED 2 = COVERED

[2] Hairs on Ventral Furrow: 1 = ABSENT 2 = PRESENT

[4] Length: 1 = SHORT (8.0 mm.) 2 = SHORT TO MIDLONG (7.5 - 9.0 mm.) 3 = MIDLONG (8.5 - 9.5 mm.) 4 = MIDLONG TO LONG (9.0 - 10.5 mm.) 5 = LONG (10.0 mm.)

[3] Wrinkling of hull: 1 = NAKED 2 = SLIGHTLY WRINKLED 3 = SEMIWRINKLED 4 = WRINKLED

[1] Aleurone Color: 1 = COLORLESS (White or Yellow) 2 = BLUE

[0][1] PERCENT ABORTIVE

[3][2] GMS. PER 1000 SEEDS

11. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] SEPTORIA	[1] NET BLOTCH	[0] SPOT BLOTCH	[2] POWDERY MILDEW
[0] LOOSE SMUT	[0] BACTERIAL BLIGHT	[0] COVERED SMUT	[0] FALSE LOOSE SMUT
[0] STEM RUST	[1] LEAF RUST	[0] SCAB	[0] SCALD
[0] AY	[0] BSMV	[0] BYDV	[ ] OTHER (Specify)

12. INSECT: (0 = Not tested, 1 = Susceptible, 2 = Resistant)

[2] GREEN BUG	[0] ENGLISH GRAIN APHID	[0] CHINCH BUG	[0] ARMYWORM
[0] GRASS HOPPERS	[1] CEREAL LEAF BETTLE	[0] OTHER (Specify)	

HESSIAN FLY RACES: [0] GP [0] A [0] B [0] C [0] D [0] E [0] F [0] G

13. CHEMICAL (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] DDT [ ] OTHER (Specify)

14. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Nomini	Seed size	Nomini
Leaf size	"	Coleoptile elongation	"
Leaf color	"	Seedling pigmentation	"
Leaf carriage	"		

REFERENCES: The following publications may be used as a reference aid for the standardization of character descriptions and terms used in this form:

1. Wiebe, G. A., and D. A. Reid, 1961, Classification of Barley Varieties Grown in the United States and Canada in 1958, Technical Bulletin No. 1224, U.S. Dept. of Agriculture.
2. Reid, D. A., and G. A. Wiebe, 1968, Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests, Agriculture Handbook No. 338, U.S. Dept. of Agriculture. pp. 61 - 84.
3. Malting Barley Improvement Association, Milwaukee, Wisconsin, 1971, Barley Variety Dictionary.

COLOR: Nickerson's or any recognized color fan may be used to determine color of the described variety.

Reprinted from *Crop Science*
Vol. 42, No. 4

Registration of 'Catchpenny' Barley

'Catchpenny' barley (*Hordeum vulgare* L.) (Reg. no. CV-298, PI 619267) is a six-rowed, feed-type winter barley developed and released in 2001 by the Maryland Agricultural Experiment Station, Department of Natural Resource Sciences and Landscape Architecture. The parentage of Catchpenny is 'Post'/4/'Jotun'/3/'Hudson'//VA 67-42-47/'Rapidan'/5/'Sussex'/'Nomini'. Catchpenny was developed by the bulk method of breeding. The last cross was made in 1988 and the seed was bulked from the F_1 through the F_5 generations. An F_5 head was sown as an F_6 head row in 1995. This F_6 head row was harvested in bulk, designated MD881007-6, subsequently tested in preliminary trials, advanced to statewide trials in the 1997-1998 crop year, and released in 2001.

Catchpenny has a green coleoptile, juvenile plants have a prostrate growth habit, leaves are glabrous, auricles are translucent, collars are closed, and anthocyanin is absent. Its nodes are green, and the flag leaf is short (avg. 5 cm) and erect at the boot stage. The spikes are compact and of medium length (avg. 6 cm) and the lemmas are awnless. Kernels are white, semiwrinkled, covered, and the rachillas have short hairs.

Catchpenny is adapted to the mid-Atlantic region of the USA. In 11 replicated performance tests conducted in Maryland from 1998 to 2000, grain yield of Catchpenny averaged 4731 kg ha^{-1}. This grain yield was similar to that of the widely grown cultivars Nomini (Starling et al., 1994), 'Callao' (Price et al., 1996) and, 'Wysor' (Starling et al., 1987), and significantly higher ($P < 0.05$) than 'Barsoy' (Finkner et al., 1968). Volume weight of Catchpenny was 591 kg m^{-3}, which was similar to that of Nomini, Barsoy, and Wysor, and lower than Callao. Heading date of Catchpenny was similar to that of Nomini and Callao, 4 d earlier than Wysor, and 2 d later than Barsoy ($P < 0.05$). Plant height was approximately 10 cm shorter than Nomini and Wysor, similar to Barsoy, and approximately 10 cm taller than Callao ($P < 0.05$). Its resistance to lodging was better than Callao and approximately equal or slightly better than Nomini, Wysor, and Barsoy ($P < 0.05$). Catchpenny is moderately resistant to powdery mildew (caused by *Erysiphe graminis* DC. f. sp. *hordei* Em. Marchal). Catchpenny is moderately susceptible to leaf rust (caused by *Puccinia hordei* G. Otth) and net blotch (caused by *Pyrenophora teres* Drechs.).

Application for cultivar protection will be made under the U.S. Plant Variety Protection Act. Breeder seed of Catchpenny will be maintained by the Maryland Agricultural Experiment Station at College Park. Small quantities of seed for research purposes are available from the corresponding author.

J.M. Costa,* A. Cooper, A. Grybauskas,
R.J. Kratochvil, D.J. Sammons, and E. Shirley

Acknowledgments

The development of this cultivar was supported in part by the Maryland Grain Producers Utilization Board and the Maryland Crop Improvement Association.

References

Finkner, V.C., C.R. Tutt, and W.R. Coffman. 1968. Registration of Barsoy barley. Crop Sci. 8:397.

Price, A.M., C.A. Griffey, T.M. Starling, W.L. Sisson, and D.E. Bran. 1996. Callao barley. Crop Sci. 36:1077.

Starling, T.M., C.A. Griffey, A.M. Price, C.W. Roane, W.L. Sisson, and D.E. Brann. 1994. Registration of Nomini barley. Crop Sci. 34:300.

Starling, T.M., C.W. Roane, and H.M. Camper Jr. 1987. Registration of Wysor barley. Crop Sci 27:1306.

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Published in Crop Sci. 42:1378–1379 (2002).

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
UNIVERSITY OF MARYLAND	MD881007-6	CATCHPENNY
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	**5. TELEPHONE** *(Include area code)*	**6. FAX** *(Include area code)*
Office of Technology Commercialization, 6200 Baltimore Ave., Suite 300 Riverdale, MD 20742-9520	301-403-2711	301-403-2717
	7. PVPO NUMBER 200300292	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** [XX] **YES** [ ] **NO**

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** [XX] **YES** [ ] **NO**

10. Is the applicant the original owner? [XX] **YES** [ ] **NO** **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
[ ] **YES** [ ] **NO** **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
[ ] **YES** [ ] **NO** **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.